

## **DETAILED ACTION**

Applicant's amendment filed on April 15, 2011 is acknowledged and has been entered.

Claim 3 and 23-24 have been canceled. Claims 5-16 and 26-28 have been amended. Claims 1-2, 4-16 and 25-37 are pending. Claims 17-22 are withdrawn from consideration as being drawn to a non-elected invention.

Claims 1-2, 4-16 and 25-37 are pending and will be examined.

### ***Response to 1.132 Declaration***

The declaration under 37 CFR 1.132 filed April 15, 2011 is sufficient to overcome the rejection of claims 1-2, 4-11, 16 and 28-29 based upon Backus, Bustin and Birch; claims 12-15 further in view of Reed and Demke; claim 25 further in view of Ivanov; claims 26-27 further in view of Mansfield; claims 30-36 further in view of Groendahl; and 30-37 further in view of Henegariu.

### ***Allowable Subject Matter***

Claims 1-2, 4-16 and 25-37 are allowed.

## **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeffrey Mills on July 6, 2011.

The application has been amended as follows:

Cancel claims 17-22.

The following is an examiner's statement of reasons for allowance: The claims are in condition for allowance in view of the persuasive declaration filed under 1.132 and the accompanying arguments. As noted in the declaration, the method of the instantly claimed invention provides an unexpectedly improved method for multiplex amplification of targets in a manner that reduces the expected requirements for optimization of amplification conditions, cycle parameters, primer concentrations and/or reagent concentrations. The results presented in the declaration compared standard multiplex amplification side-by-side with the type of multiplex amplification as claimed, which is carried out in the presence of a volume exclusion agent.

As noted in the declaration (p. 7 and 9 of declaration), "using the methods of the presently claimed invention, successful co-amplification was achieved in the first attempt". The success of the instantly claimed method provides for multiplex amplification in a manner that reduces the time and effort spent on optimization and therefore provides an unexpected improvement over standard multiplex amplification techniques. Furthermore, the art applied in the rejection(s) represent the closest prior art. While there is a recognition in the prior art, as noted in the specification, that the inclusion of volume exclusion agents drive hybridization of oligonucleotides, the prior art does not suggest the kind of improved technique or results as

depicted in the instantly filed declaration. Therefore, the instantly claimed method is novel and non-obvious over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHANIE K. MUMMERT whose telephone number is (571)272-8503. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHANIE K MUMMERT/

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Primary Examiner, Art Unit 1637

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